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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,914	01/05/2001	Yoram De Hazan	2-83-9-4	5051

7590

03/18/2003

Thomas, Kayden, Horstemeyer & Risley, L.L.P.
Suite 1500
100 Galleria Parkway, N.W.
Atlanta, GA 30339-5948

EXAMINER

LOPEZ, CARLOS N

ART UNIT

PAPER NUMBER

1731

DATE MAILED: 03/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/755,914

Applicant(s)

DE HAZAN ET AL.

Examiner

Carlos Lopez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 January 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: element 22 in figure 5. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: misspelling at line 20 of page 16.

Appropriate correction is required.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: In claim 1, the term "devoid".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Kyoto et al (US 5,364,428). Kyoto et al disclose a method of doping a glass preform with fluorine

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(SiF₄) at a temperature of 800 to 1400°C to activate the SiO₂ so as to promote the reaction of SiO₂ with SiF₄ (Column 6, line 27-30). Example 4 treats a quartz soot perform for 2 hours in an atmosphere having 100% SiF₄, after terminating the supply of SiF₄ the soot body is then heated to 1600°C in a helium atmosphere to consolidate the porous body (Column 8, lines 34-51). The consolidated perform is then drawn to fabricate an optical fiber (Column 1, lines 23-67, Column 3, line 8ff).

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Kyoto et al (US 4,586,943). Kyoto et al. disclose a method of doping a silica glass preform with fluorine. Kyoto et al. first heats the preform to 800-1200°C in an inert gas atmosphere or an inert gas atmosphere containing a chlorine-based gas to dehydrate and remove impurities (col. 3, lines 36-53). Following the first heating step Kyoto et al. then heats the preform at a temperature of from 1100-1400°C in an inert gas atmosphere containing fluorine gas or a gaseous fluorine-based compound such as CF₄, SF₆, SiF₄, COF₂ and the like (col. 3, lines 61-68) - this heating step is deemed to correspond to step (ii) of claim 1. Following the heating in an inert gas atmosphere containing fluorine gas or a gaseous fluorine-based compound the preform is heated in a third heating step for the purpose of converting the glass preform to a transparent one, preferably the third heating step is carried out at a temperature of not lower than 1400°C and more preferably in excess of 1600°C, this heating step is for at least an hour and is carried out in an inert gas atmosphere such as helium, argon or nitrogen (see col. 4, lines 32-46). With respect to the time period for heating the preform in the fluorine atmosphere Kyoto et al. discloses in Ex. 1 heating for 1 hour at 1400°C (col. 5, lines 45-59). See

also Fig. 7 of Kyoto et al. which clearly suggests the steps as claimed. Regarding the concentration of the fluorine atmosphere recited in claim 3 see col. 4, lines 15 of Kyoto et al. Regarding the recitation that the preform is drawn, Kyoto et al. clearly suggests this by stating that an optical fiber is formed from the preform.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kyoto et al (US 5,364,428). As disclosed above, Kyoto et al teaches a method of doping a glass preform with fluorine (SiF_4) at a temperature of 800 to 1400°C to activate the SiO_2 so as to promote the reaction of SiO_2 with SiF_4 (Column 6, line 27-30). Kyoto lacks or does not expressly disclose treating a porous silica body having a weight greater than 5kg. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have treated a perform having a weight greater than 5kg since it has been held that mere scaling up of a prior art process capable of being scaled up, does not establish patentability in a claim to an old process so scaled, *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976). Furthermore the treatment of a preform greater than 5kg would not result in an unexpected result in comparison of a 1kg perform.


Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References C-H have been cited to show the state of the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lopez whose telephone number is (703) 605-1174. The examiner can normally be reached on Mon.-Fri. 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (703) 308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.


STEVEN P. GRIFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

C.L
March 10, 2003

DETAILED ACTION

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: element 22 in figure 5. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Kyoto et al (US 5,364,428). Kyoto et al disclose a method of doping a glass preform with

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fluorine. Example 4 treats a quartz soot perform for 2 hours in an atmosphere having 100% SiF₄, after terminating the supply of SiF₄ the soot body is then heated to 1600°C in a helium atmosphere to consolidate the porous body (Column 8, lines 34-51). The consolidated perform is then drawn to fabricate an optical fiber (Column 1, lines 23-67, Column 3, line 8ff).

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Kyoto et al (US 4,586,943). Kyoto et al disclose a method of doping a glass preform with fluorine. Example 1 heat treats a glass preform by raising the temperature of the perform from 1100 °C to 1,400°C for a total time of 120 minutes in an atmosphere having SF₆, or optionally SiF₄ as taught in Column 3, line 68, which is then heated to 1600°C in a helium atmosphere devoid of fluorine, (see column 4 line 43), to consolidate the porous body. The consolidated perform is then drawn to fabricate an optical fiber (Abstract).

Allowable Subject Matter

Claims 4-5 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: The cited prior art fails to disclose or reasonably suggest heat treating a porous silica body having a weight greater than 5kg in the range of 800-1000°C in fluorine atmosphere for a period of 10- 240 minutes. The closest prior art (US 5,364,428) teaches of heat treating a porous silica body in the claimed range but fails to disclose or

reasonably suggest heat treating the silica body with a weight greater than 5kg (Note US 5,364,428 Col.2, lines. 16-18).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References C-H have been cited to show the state of the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lopez whose telephone number is (703) 605-1174. The examiner can normally be reached on Mon.-Fri. 8am - 5pm.

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March 10, 2003